

Some of the references cited herein are listed below, the entirety of each one of which is hereby incorporated by reference herein:

- Charles R, Sandrasegarane L, Yun J, Bourbon N, Wilson R, Rothstein R P, et al., Ceramide-Coated Balloon Catheters Limit Neointimal Hyperplasia after Stretch Injury in Carotid Arteries, *Circulation Research* 2000; 87(4): 282-288.
- Coroneos E, Martinez M, McKenna S, Kester M., Differential regulation of sphingomyelinase and ceramidase activities by growth factors and cytokines. Implications for cellular proliferation and differentiation, *J Biol. Chem.* 1995; 270 (40): 23305-9.
- Coroneos E, Wang Y, Panuska J R, Templeton D J, Kester M., Sphingolipid metabolites differentially regulate extracellular signal-regulated kinase and stress-activated protein kinase cascades, *Biochem J.* 1996; 316 (Pt 1): 13-7.
- Jacobs L S, Kester M., Sphingolipids as mediators of effects of platelet-derived growth factor in vascular smooth muscle cells, *Am. J. Physiology* 1993; 265 (3 Pt 1): C740-7.
- Tanguay J F, Zidar J P, Phillips H R, 3rd, Stack R S, Current status of biodegradable stents, *Cardiol. Clin.* 1994; 12(4): 699-713.
- Nikol S, Huehns T Y, Hofling B., Molecular biology and post-angioplasty restenosis, *Atherosclerosis* 1996; 123 (1-2): 17-31.
- Buddy D, Ratner, Allan S, Hoffman, Frederick J, Schoen, And Jack E, Lemons, *Biomaterials Science: An Introduction to Materials in Medicine* (Elsevier Academic Press 2004).

What is claimed is:

1. An expandable slide and lock stent, the stent comprising a tubular member having circumferential and longitudinal axes, the stent comprising:

- a first backbone;
- a second backbone;
- a third backbone;
- each of the first, second, and third backbones extending along at least a portion of the circumferential and the longitudinal axes, and each comprising:
 - an open bond slot in a first portion of the respective backbone;
 - a closed pass-through slot in a second portion of the respective backbone; and
 - a recessed nesting area in a third portion of the respective backbone;
- the first portion being radially thinner than the second portion and being radially thinner than the third portion; and
- the third portion being radially thinner than the second portion;
- a rail member extending along at least a portion of the circumferential axis, the rail member comprising proximal and distal ends, wherein:
 - the proximal end of the rail member is coupled to the first backbone at the open bond slot of the first backbone;
 - the distal end of the rail member extends from the first backbone in a circumferential direction through the closed pass-through slot of the second backbone; and
 - the rail member being slidably interfaced with the recessed nesting area of the third backbone;
- wherein the rail member is configured to provide one-way movement of the second and third backbones away from

the first backbone such that the tubular member can be expanded between a collapsed diameter and an expanded diameter.

2. The expandable stent of claim 1, further comprising a second rail member defining proximal and distal ends, the proximal end of the rail member being coupled to the second backbone at the open bond slot, the distal end of the rail member extending from the second backbone in the circumferential direction through the closed pass-through slot of the third backbone, the rail member slidably interfaced with a recessed nesting area of a fourth backbone circumferentially adjacent to the third backbone.

3. The expandable stent of claim 1, wherein the rail member is slidably interfaced with the recessed nesting area of the third backbone and is the radially thickest portion of the expandable stent.

4. The expandable stent of claim 3, wherein radially thickest portion of the expandable stent is 325 microns or less.

5. The slide and lock stent of claim 1, wherein the open bond slot, closed pass-through slot, and recessed nesting area form a generally stair-shape structure along the longitudinal axis of the backbones.

6. The slide and lock stent of claim 1, wherein the open bond slot comprises two generally perpendicular walls attached to a base, wherein a surface opposite of the base is open and configured to receive the rail member.

7. The slide and lock stent of claim 1, wherein the closed bond slot comprises two generally perpendicular walls attached to a base and a top, wherein the rail member is configured to insert into the closed bond slot through an opening orthogonal to the walls, base, and top.

8. The slide and lock stent of claim 1, wherein the recessed nesting area comprises a bottom surface and a wall generally perpendicular to the bottom surface, the recessed nesting area configured to slidably interface with the rail member.

9. An expandable slide and lock stent, the stent comprising a tubular member having circumferential and longitudinal axes, the stent comprising:

- a first backbone and a second backbone, the first and second backbones extending along at least a portion of the circumferential axis and along the longitudinal axis, the first and second backbones each having:
 - a first portion;
 - a second portion; and
 - a third portion;
- wherein each of the portions has a different radial thickness, the first portion being thicker than the second portion, and the second portion being thicker than the third portion; and
- wherein the second portion is located longitudinally between the first and third portions on the backbones;
- a rail member defining proximal and distal ends, the proximal end of the rail member being coupled to the first backbone at the first portion, the distal end of the rail member extending from the first backbone in a circumferential direction, the rail member configured to engage with an engagement element in the third portion of the second backbone;
- wherein the rail member is configured to provide one-way movement of the second backbone away from the first backbone such that the tubular member can be expanded between a collapsed diameter and an expanded diameter.
- 10. The slide and lock stent of claim 9, wherein the third portion is a closed slot.
- 11. The slide and lock stent of claim 9, wherein the first portion is an open slot.